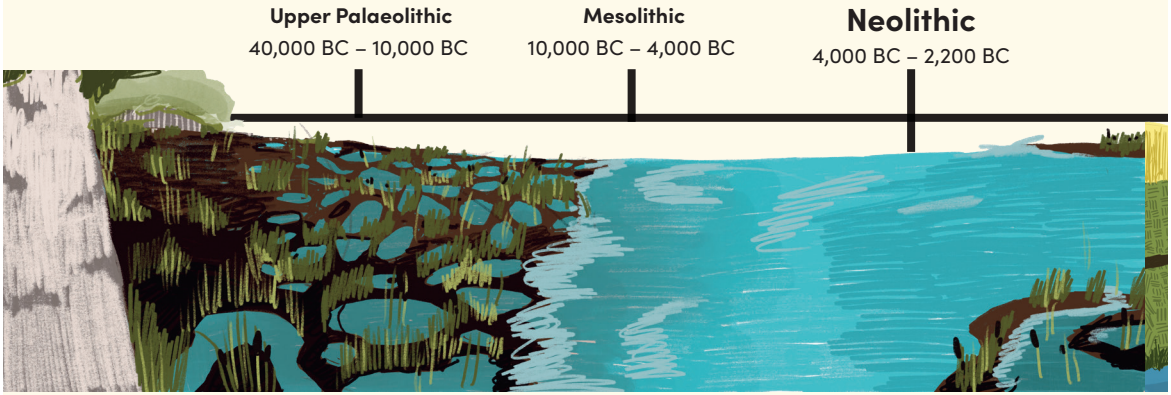
York Archaeology

Holderness Histories:

A flight through time

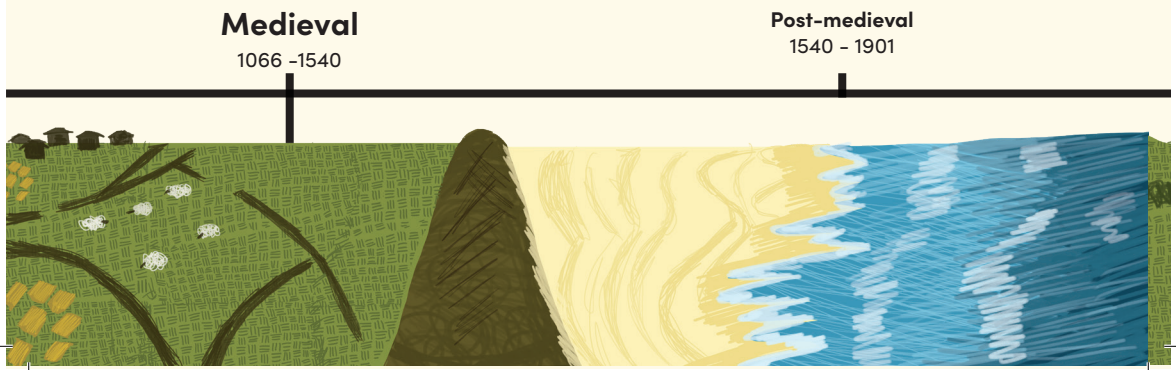
Photo credit to the Environment Agency and JBA Bentley

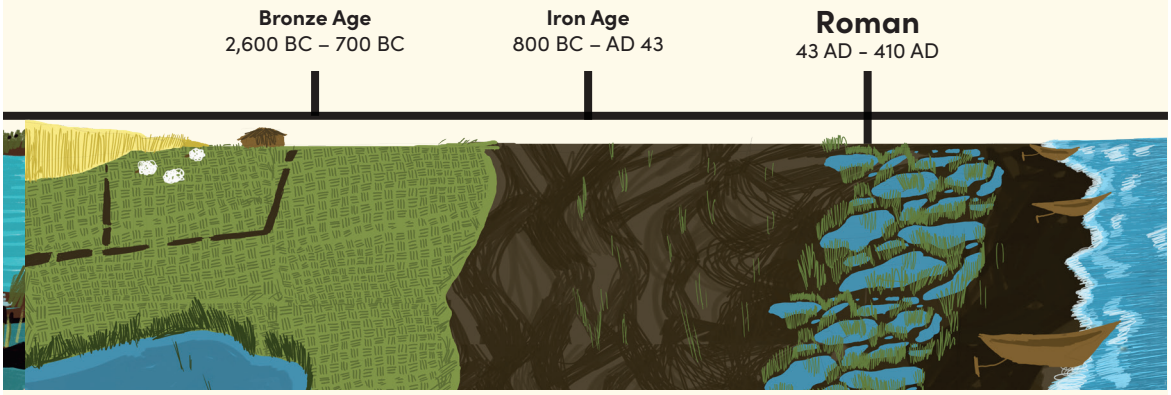


Introduction

The story of human settlement in the Holderness peninsula is intimately tied to the changing environment and the everchanging coastal landscape there. This has, through the ages, provided both challenges and opportunities to the people living and working in the area.

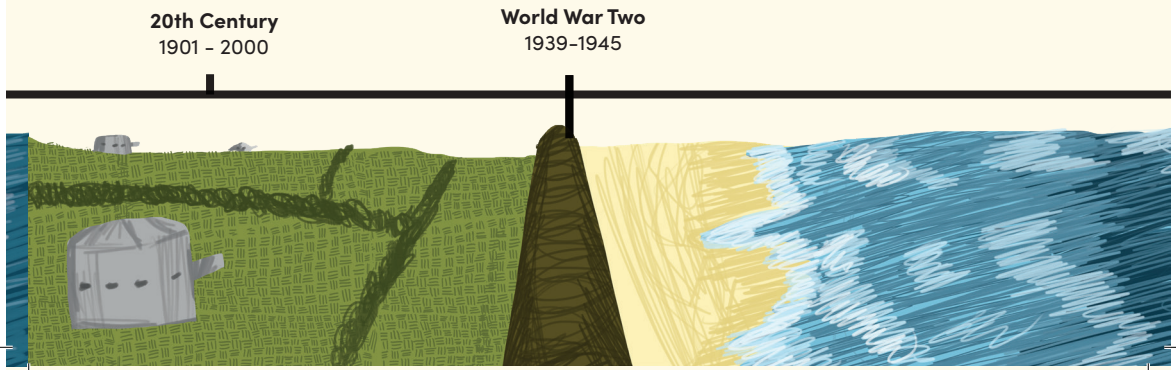
This booklet describes how one small area on the Humber estuary has changed over time. Our work has focused on understanding how broader climatic changes have affected the landscape and how this, in turn, has affected human behaviour.
Starting in 2012, York Archaeology, working on behalf of the Environment Agency, has begun uncovering the history of these people occupying land to the south of the villages of Welwick, Weeton and Skeffling. This has been done by piecing together evidence from archival research, aerial photography, geophysical survey, trial trenching and larger excavations.





Evidence from boreholes has helped us understand how the landscape has changed over time. There has been a continual change from warmer and wetter periods to cooler and drier periods, causing massive implications for how people lived and worked here. By taking many samples from deeply buried deposits across the landscape, they have been able to build a picture of the dramatic changes along the Humber Estuary over the last 10,000 years.

Four broad themes emerged from our investigations, revealing a rich landscape where human activity stretched back up to 12,000 years ago. The first evidence we found of people in the area south of Welwick, Weeton and Skeffling were isolated flint finds from the Mesolithic and Neolithic periods of prehistory, possibly dropped during foraging or hunting trips. During the Roman and medieval periods, we found evidence of how people were farming the land in this area and how they coped with the changing climate and sea levels. The final story revealed by our investigations is one of coastal defence during World War 2, protecting the Humber Estuary not from the sea but from threats across the sea.

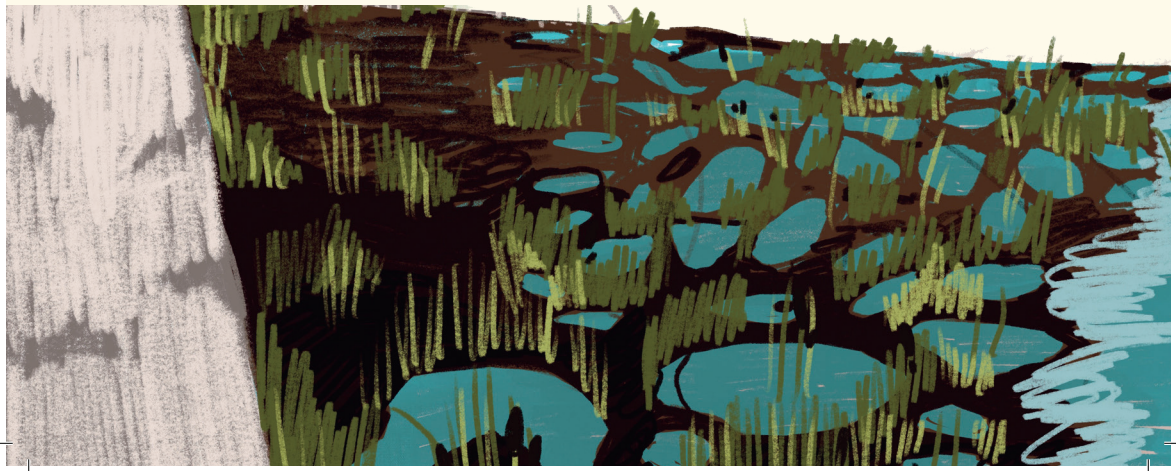


Prehistory

During the Ice Age, over 12,000 years ago, the Holderness peninsula was covered in a large glacier that stretched from Ireland to Scandinavia and covered most of Yorkshire. At this time, the area south of Welwick, Weeton and Skeffling was far from the sea but close to a freshwater pond in an inland river valley. During this time, Britain was connected to mainland Europe by the low-lying lands of 'Doggerland', or the North Sea basin, an area of gently sloping hills, marshland, heavily wooded valleys and swampy lagoons.

At the beginning of the Mesolithic period (12,000 - 6,000 years ago), people lived in the 'Doggerland' area, migrating with the seasons, fishing, hunting, and gathering seasonally available food, such as hazelnuts and berries. Over the course of the Mesolithic, a dramatic change occurred in the environment of Britain. Over the next 4,000 to 5,000 years, a combination of warmer temperatures and increasing rainfall caused the glaciers to melt and global sea levels to rise by 30 metres. The low-lying lands of 'Doggerland' gradually flooded to form the North Sea, cutting Britain off from mainland Europe and resulting in the Yorkshire coastline that we know today. Rising sea levels meant that the Mesolithic people living in the 'Doggerland' area saw their seasonal hunting grounds slowly flooded, forcing them onto higher ground. The Welwick, Weeton, and Skeffling areas were no longer inland but now on the edge of an estuary.

Illustrated representation of the transition from a freshwater environment to a salty estuarine one in the Late Mesolithic/Early Neolithic approximately 6,400 years ago / 4,400 BC



This meant that conditions there changed from freshwater to more salty estuarine ones, affecting how people used the land. By drilling into ancient sediments to retrieve samples that can be dated, our geoarchaeologists have been able to pinpoint that the transition occurred around 6,400 years ago. The resulting saltmarsh landscape would have provided a rich source of food and materials for people living there, such as fish, birds and shellfish.

Around 6,000 years ago, people gradually began to switch from the highly mobile Mesolithic hunter-gatherer lifestyle to a more sedentary lifestyle, with the adoption of farming in the Neolithic period (6,000–4,000 years ago). The transition to farming led to communities settling down in one area and clearing forests to provide permanent open space for crops and animal herds. Archaeological evidence shows that there was still a reliance on wild food and resources to supplement farming. We know that people took advantage of the natural resources of the land south of Welwick, Weeton and Skeffling during the Mesolithic and Neolithic periods, as we have found some of the objects that they made.

A flint blade may have been used by Mesolithic hunters and gatherers to cut meat or plant material during one of their seasonal visits to this area, and a flint arrowhead of the Neolithic farmers was found, perhaps lost during a hunting trip.

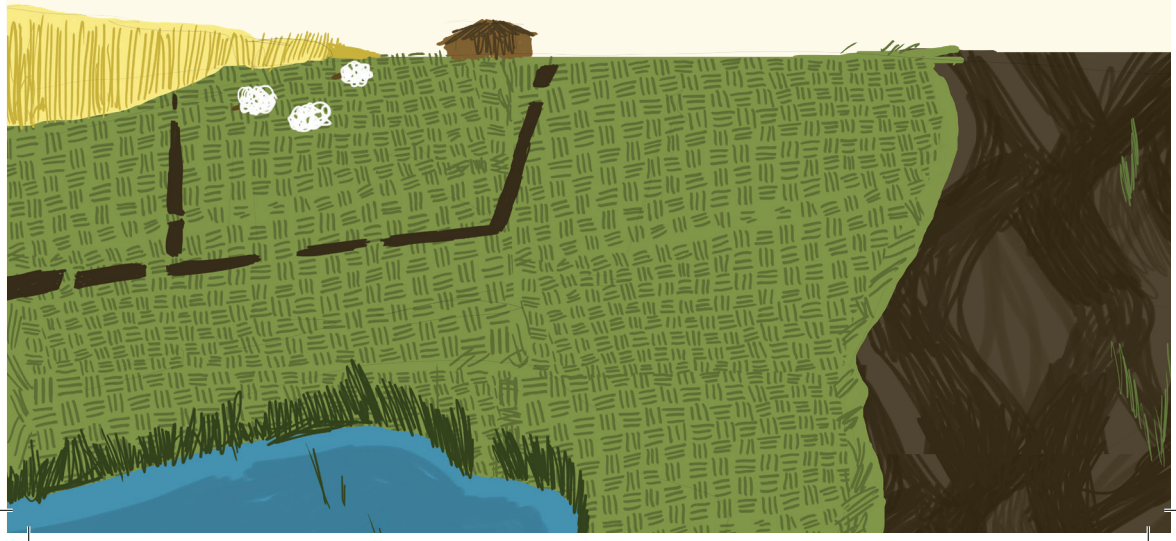
Early Neolithic arrow head
6,000 – 5,300 years ago / 4,000 BC – 3,300 BC

Roman

During the Roman period, the climate was warmer and wetter than in the Bronze Age and Iron Age, causing changes in sea levels. The expansion and contraction of the estuary coastline would have been a constant battle faced by the people living along this part of the Humber. In the early Roman period, the estuary may have shrunk, resulting in people living in areas that had previously been uninhabitable. In the later Roman period, the estuary expanded, and the area became tidal, creating large areas that were no longer suitable for settlement. From pollen analysis, we know that at this time, the environment around the Welwick, Weeton and Skeffling areas was open grassland with no trees. We found pollen of coastal plants such as sea thrift and salt-tolerant species like goosefoot.

A quern stone found in our excavation. These were used to grind grain.

Illustrated representation of the late Roman agricultural landscape

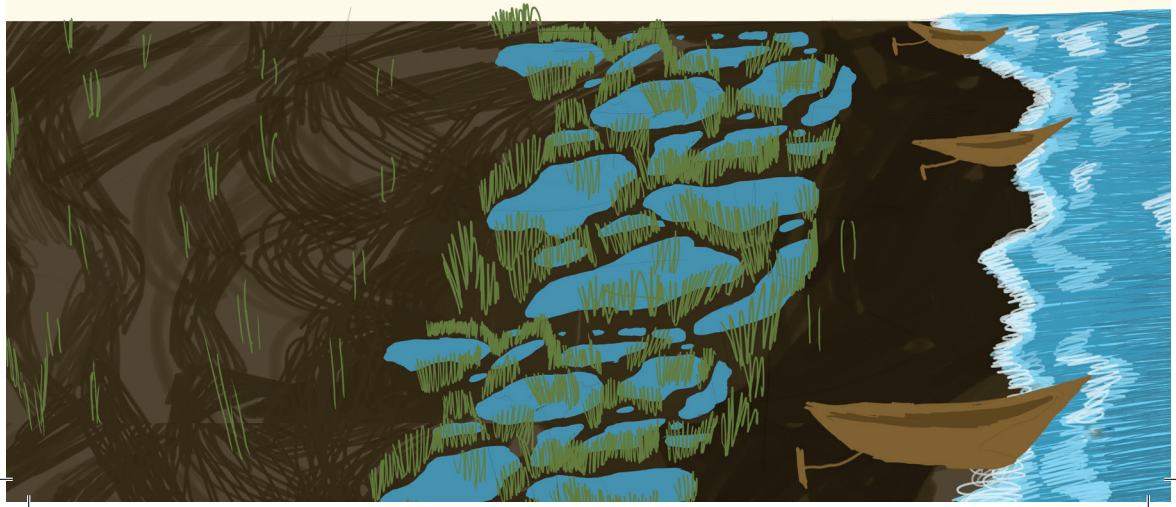


Late 2nd early 3rd century decorated beaker

Selection of Roman pottery found in our excavations

The changeable nature of the land around the estuary is reflected in the archaeological evidence revealed by our investigations. Geophysical survey to the north of the Outstrays to Skeffling scheme discovered a probable Roman settlement with possible buildings on either side of a road. Because our scheme will not affect the settlement, we have not excavated this, and it remains preserved.

In our excavations elsewhere on the site, we found evidence to suggest that people from this settlement used the land according to how wet it was. The animal bone that we recovered tells us that they kept livestock such as cattle, sheep and pigs in stock enclosures on the marshy land to the south and lived and grew crops such as wheat on the higher ground. Ditches were dug to keep livestock from wandering off and to help drain the fields.



Pottery and other objects found within those ditches were probably dumped there as rubbish from the nearby settlement. A stone spindle whorl is evidence that wool was spun to create cloth for the people who lived in the settlement.

The pottery gives us an insight into the diet and social status of the people living there. The majority of it was handmade and is of native British rather than Roman type, which suggests that people were of relatively low social status within Roman society. These types included storage jars and grinding bowls. There were also some pieces of finer decorated tableware made on a wheel, showing how people were adopting some Roman customs. There was little evidence that continental foodstuffs such as olive oil, wine and fish sauce were being imported, which is quite unusual for Roman period settlements in Britain. This could suggest that local traditions continued late into the Roman period.

The base of a decorative Samian tableware bowl from Gaul, stamped with the maker's mark.

Stone spindle whorl, a weight for a spindle for spinning wool.

Roman Mortaria sherd, it has a spout for pouring the ground food.

An illustrated recreation of what the Roman Mortaria sherd would have looked like.

One interesting discovery from our investigations was that vast amounts of oyster shells were found within pits and ditches during an excavation close to the estuary south of Weeton. We know that oysters were considered a delicacy by the Romans and were a staple food at that time. There are accounts of British oysters being particularly prized in Rome. There is evidence that in Roman Italy, oysters were farmed by creating oyster beds or by using a suspended rope method. The shells from the Weeton site were misshapen, suggesting that the oysters grew together on a shell reef, and it is possible that they were farmed from local oyster beds located off the coast. The abundance of oyster shells at the site demonstrates the processing or consumption of large numbers of oysters. They may have been a major part of the diet for people living close by, or they might have been processed for export to larger settlements such as York or Brough or even abroad.

Only a few fishbones were found during the excavations, so we do not know whether fish formed a big part of their diet, but bones of a thornback ray were identified, and the vertebrae of a large whale or bottlenose dolphin were found. The animals might have been scavenged off the beach.

One unexpected find was a single human skull, with no skeleton attached, found within the backfill of a ditch. This has been radiocarbon dated to either the end of the Roman period or possibly the early medieval period. How it found its way into the top of the ditch is a mystery. However, it was definitely deposited after the ditches had silted up in the late Roman period (the late 4th century). It is possible that it was placed as an offering when people left the site at the end of the Roman period, or the skull is all that remains from a complete early medieval burial.

Roman pit containing vast quantities of oyster shells

Medieval

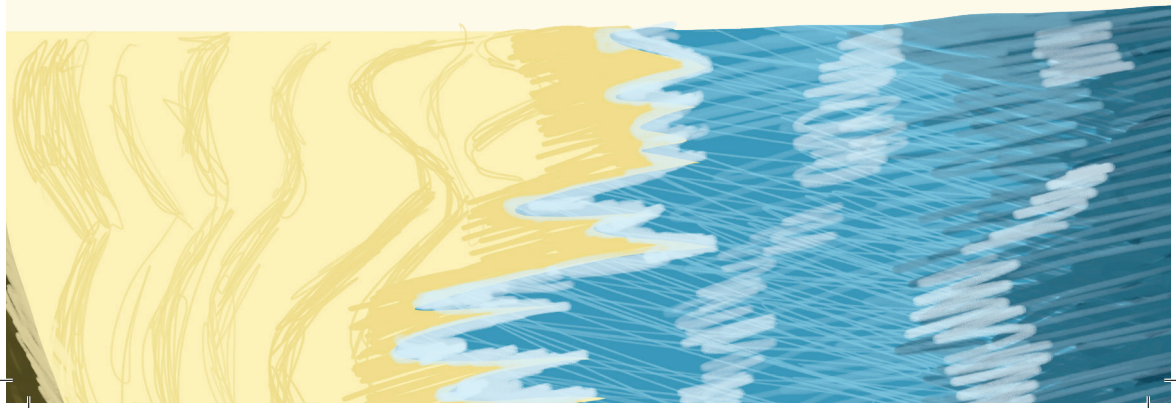
Coastal erosion and flooding played a major part in shaping the estuary during the Middle Ages. The history of medieval Humberside is one of ingenuity and perseverance in the face of the constant risk of flooding, particularly from the 13th century onwards when the climate became colder and wetter. In many places, this battle with the sea was lost with many towns, including Tharlesthorpe, Orwithfleet and Frismersk were submerged beneath the rising water by the 14th and 15th centuries. An earthwork bank was constructed along the estuary, decreed by 13th century Royal Charters as essential to manage and maintain the landscape for trade and commerce. Despite this construction, much of the land around the estuary would have remained wet and marshy.

From the 11th century onwards, these wetland areas were more intensively exploited for agriculture and settlement than during the Roman period. The three settlements of Welwick Thorp, Welwick and Weeton were named in the Domesday Book as within the lordship of the Archbishops of York. The village of Pensthorpe was prosperous enough to be mentioned as one of the Humberside settlements named in a commission for the upkeep of the flood banks and ditches in 1342. Our archaeologists rediscovered agricultural fields that may have been associated with the nearby settlement of Pensthorp during excavations south of Welwick.

Illustrated representation of a settlement and associated pastoral fields in the medieval period

Our excavations found evidence of people improving and draining the land for agriculture. We recorded large drainage ditches that were dug to provide pasture for grazing sheep and cattle. In other areas, the sediments recorded during our excavations tell us that the fields were deliberately flooded with water (so called warping) from the Humber to use the nutrient rich silts to improve the fertility of the land. The later medieval period saw people retreat from the coast as unsettled climate conditions made the lower-lying areas less habitable.

1786 map of the area showing the medieval villages. Welwick, Weeton and Skeffling still survive. Pensthorpe is lost to the sea.



Sherds of pottery were found discarded in what we think were the medieval fields of Pensthorp village. The earliest pottery dated from the 10th to the 11th centuries. This Anglo-Scandinavian pottery (Torksey ware) was handmade with plain decoration and perhaps indicates the low status of the people living there at the time. But sherds from an early 13th century 'face' jug were found, which were a high-status item. This shows that by the 1200s, Pensthorp was probably more prosperous than it had been previously. The jug features a bearded face and is thought to symbolise male virility.

Archival research shows us that the lost site of Burstall Priory probably lay south of our excavations. The priory is shown in an early 18th century sketch positioned at the edge of the estuary shore. Founded in the 12th century, Burstall was initially founded by Aumale Priory in Normandy. In the 14th century, during the war with France, Aumale's possessions were confiscated, and Burstall Priory was sold to Kirkstall Abbey in 1396. It stopped functioning as a priory when it was sold, although the buildings were still standing during the Dissolution of the monasteries (by Henry VIII) in 1540. We suspect that the priory was lost to the Humber later on in that century. The exact location of the priory is unknown, and no direct evidence of it was found during the excavations, but it is possible that some of the pottery found on the site originated from the Priory.

Medieval pottery from the excavation south of Welwick.

10th to 11th century handmade Torksey pottery

Glazed and unglazed jug handles originating from Beverley in the 12th to 14th centuries

These jug sherds are possibly from a face jug. These were a distinctive form with a bearded face, thought to symbolise male virility and a sign of high status

World War 2

After the evacuation of Dunkirk in 1940, the threat of coastal invasion by the Germans was thought to be high, and defending the eastern coast, particularly the flat coastline of the East Riding, on which a plane could easily land, was a priority. Heavy anti-aircraft gun-sites played a key part in the defence of this region, to shoot down enemy aircraft as they flew over to bomb the docks at Hull. The archaeologists recorded a heavy anti-aircraft gun-site, to the south of Welwick. An RAF aerial photograph of 1947 shows four octagonal gun pits in an arc around the control building, an ammunition store with a double wall, and many other buildings spread around the site. A pale area to the right of the gun-pits was where the radar was located, sitting on a grid of chicken wire that helped to cut out interference.

One gun-pit, the ammunition store and a Nissen hut, surrounded by its protective blast wall, survived. The removal of topsoil to construct a temporary access road revealed the foundations of other wartime buildings, but we cannot ascertain their function.

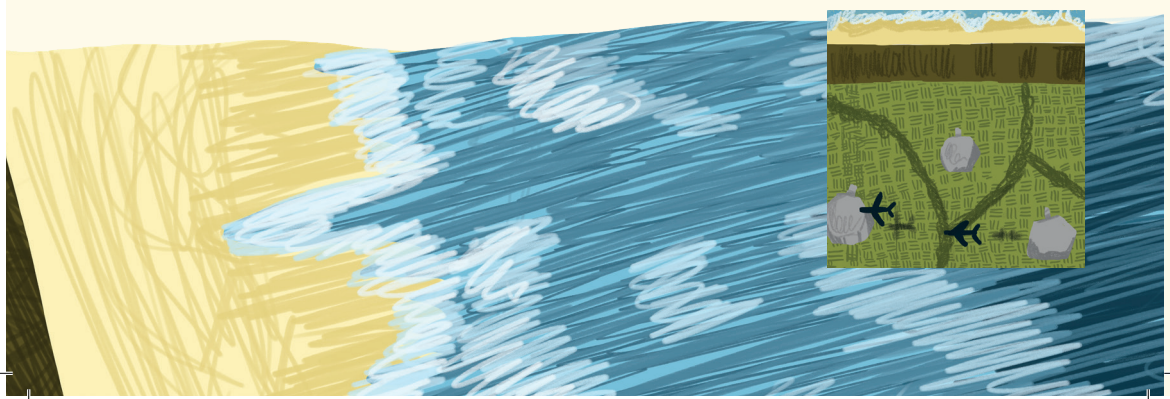
The gun-site was crewed by the Territorial Service, also known as Dad's Army, with only a few officers from the Royal Artillery in command. It was one of 29 heavy anti-aircraft sites constructed to protect Hull's docks and industry from German bombing raids.

Illustrated recreation of a World War Two landscape with gun-sites.

Part of one octagonal gun-pit, recorded on site.
(Photo credit to JBA Consulting)

Climate, coastal processes and human intervention will, just as they did in the past, continue to shape the land on the Humber Estuary. Our discovery of a Roman oyster processing site is timely. During the Victorian period, the Humber had one of the UK's largest oyster reefs, stretching right across the estuary. The reef was largely lost due to a rise in sea temperature, fishing methods and pollution. Oysters are amazing creatures. They are natural filters, keeping the water clean as they absorb carbon and release oxygen. Today, oysters are once again being reintroduced into the Humber, bringing our story full circle. The reefs will help to protect the coastline from erosion by stabilising the seabed and absorbing wave energy.

You will be able to read more about our archaeological discoveries in a forthcoming academic publication in Internet Archaeology, a free to access online journal.



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